REMARKS

Reconsideration and withdrawal of the outstanding grounds of rejection is respectfully requested in light of the above amendments and the remarks which follow.

The Examiner has rejected claims 1-9 and 18 under 35 U.S.C. 103(a) as unpatentable over Blaettner (U.S. 5,497,039) in view of Japan 358054606. According to the Examiner, Blaettner discloses the claimed invention except for a powder resin specifically having a dielectric strength of 1000-1500 v/mil. The Examiner relies on the Japan '606 reference for disclosing a coating for a coil of an electric machine formed of a silicon powder resin having a high dielectric strength. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to use the coating composition of the Japan '606 patent on the coil layers of Blaettner in order to withstand the operating environment of a feed coil.

Blaettner discloses a small electric motor wherein the armature 26 is comprised of a core 28 made up of a series of laminations 30, each of which comprises a yolk portion 133 and a plurality of lamination teeth 134 extending radially away from the yolk. These lamination teeth define radial slots 128 between adjacent teeth, as best seen in Figures 4B and 5. After the core 28 and shaft 32 are assembled, magnet wire 125 is operatively wound in the slots 128.

In order to more clearly distinguish the field coil of applicant's invention from the core structure of Blaettner's motor, applicant has amended independent claims 1, 9 and 18 to require a current carrying copper field coil for a generator electromagnetic rotor comprising multiple layers where each of the layers of the rotor have a pair of ends

connected by a pair of longitudinal sides that are adapted to be received within elongated slots formed in the electromagnetic rotor. To the extent that Blaettner's core 28 is analogous to an electromagnetic rotor, there is a significant difference in that Blaettner discloses an insulating coating of epoxy resin 132 applied to the laminations 30 of the core, the shaft 32, and a spacer 126, as indicated by the dotted lines in Figure 4A. In contrast, the claimed invention relates to the layers or windings that are received within the radial slots of an electromagnetic rotor, with the layers or windings each substantially entirely coated with a powder resin having a dielectric strength of at least 1000 v/mil. Thus, even if the teaching of Japan '606 is applied to Blaettner, the claimed invention does not ensue.

Moreover, with respect to Japan '606, applicant again points out that the Examiner has assumed that a reference to enhanced dielectric strength provides evidence of obviousness with respect to the specific requirements in claims 1, 9 and 18 that the coating have a dielectric strength of at least 1000 v/mil. The Examiner's conclusion is not based on any facts evident from that reference, and moreover, the Examiner has not demonstrated that the '606 reference disclosure of enhanced dielectric strength is in fact superior to the dielectric strength associated with Blaettner's epoxy resin 132.

With regard to claim 3, the Examiner contends that it would have been obvious to one of ordinary skill in the art not to coat the end connections of the winding in order to provide a good electrical connection. Here again, the Examiner assumes facts not in evidence. For example, the common practice is to coat the end connections and then subsequently remove the coating to the extent required for attachment of the conductor to

the electrical system. Similarly, the Examiner assumes that the addition of multiple coatings as required by claim 8 would also have been obvious for the purpose of improving wear characteristics. In fact, the need to apply the insulating coating in multiple layers may be dictated by the properties of the resin to achieve a uniform, defect-free coating, or to achieve the desired mechanical and/or electrical properties of the coating. The documents relied upon by the Examiner suggest no application of more than one coat of the powder resin composition.

The Examiner has also made reference to the use of specific material used to form the coils, contending that the material selection would have been an obvious design consideration, apparently referring to the description of the field coil as a copper field coil in claim 18. Neither Blaettner nor Japan '606 identify the coil material being coated, and there are other metallic conducting materials currently used in electric machines. The Examiner's conclusion that it would have been obvious to utilize a copper field coil in combination with the specific coating material is thus based on hindsight reconstruction, without supporting factual evidence in the cited and applied prior art.

For the above reasons, it is respectfully submitted that the single ground of rejection applied against the remaining application claims is improper and should now be withdrawn. Since the application is now in condition for allowance, early passage to issue is requested. In the event, however, any small matters remain outstanding, the Examiner is encouraged to telephone the undersigned so that the prosecution of this application can be expeditiously concluded.

Attached hereto is a marked-up version of the changes made to the specification and claim(s) by the current amendment. The attached page(s) is captioned "**Version With Markings To Show Changes Made.**"

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Amend claims 1, 9 and 18 as follows:

1. (Amended) A current carrying copper field coil for [an] a generator electromagnetic rotor comprising multiple layers, said layers each having a pair of ends connected by a pair of longitudinal sides that are adapted to be received within elongated slots formed in the electromagnetic rotor, each layer being substantially entirely coated with a powder resin having a dielectric strength of at least 1000 v/mil, and a thermal stability above 155° C.

9. (Amended) A current carrying copper field coil for [an] a generator electromagnetic rotor comprising multiple layers, said layers each having a pair of ends connected by a pair of longitudinal sides that are adapted to be received within elongated slots formed in the electromagnetic rotor, each layer being substantially entirely coated with a powder resin selected from a group consisting essentially of epoxy powder resins and silicone powder resins, wherein said powder resin has a dielectric strength of at least 1000 v/mil and thermal stability above 155° C.

18. (Amended) A current carrying copper field coil for [an] a generator electromagnetic rotor comprising helically wound layers, each [layer] having a pair of ends connected by a pair of longitudinal sides that are adapted to be received within

elongated slots formed in the electromagnetic rotor, each layer being substantially entirely coated with insulation comprising a powder resin having a dielectric strength of at least 1000 v/mil, and a thermal stability about 155° C.

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